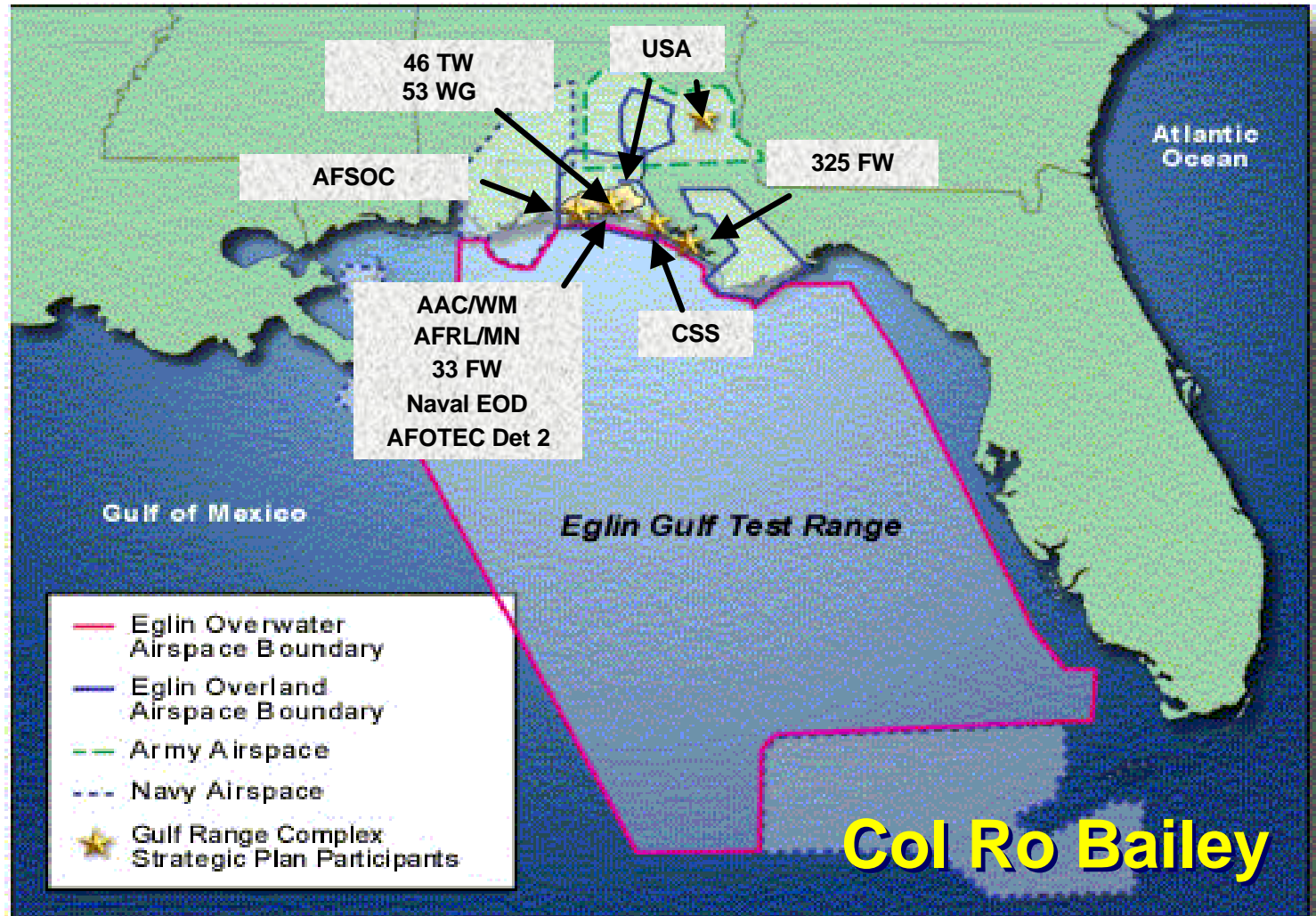
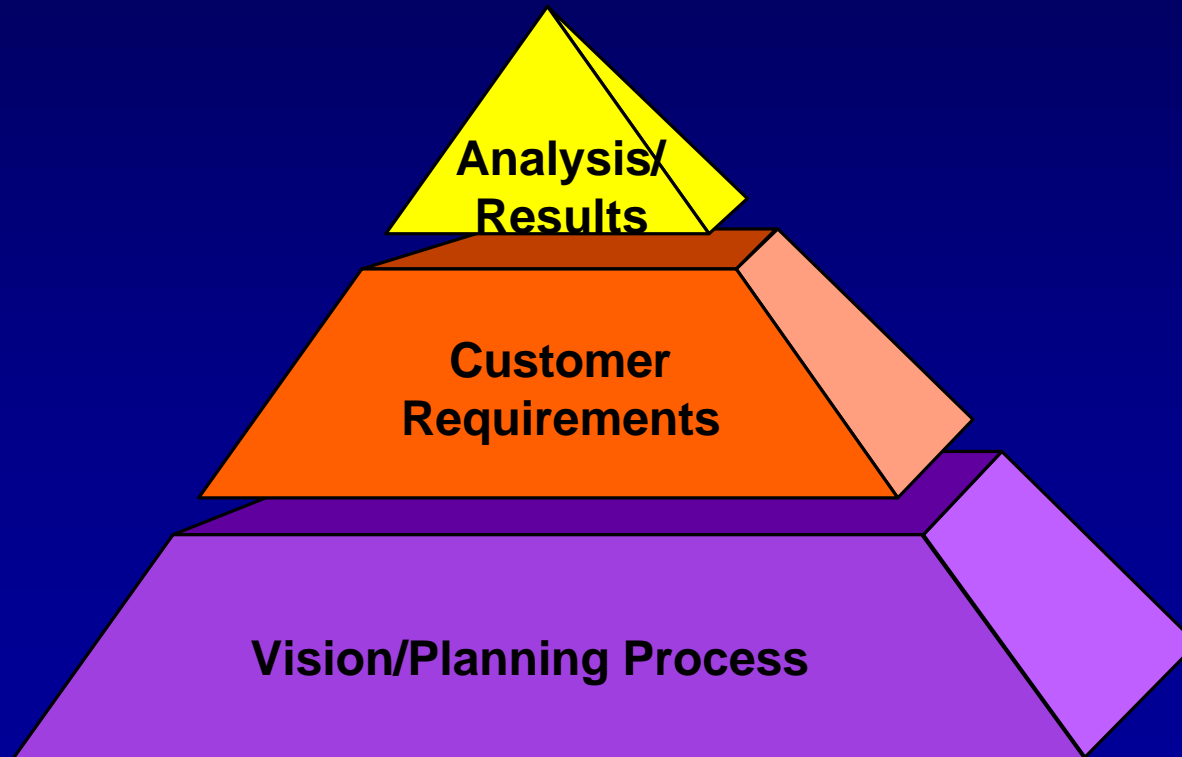


Gulf Range Complex 2025 Strategic Plan



PURPOSE

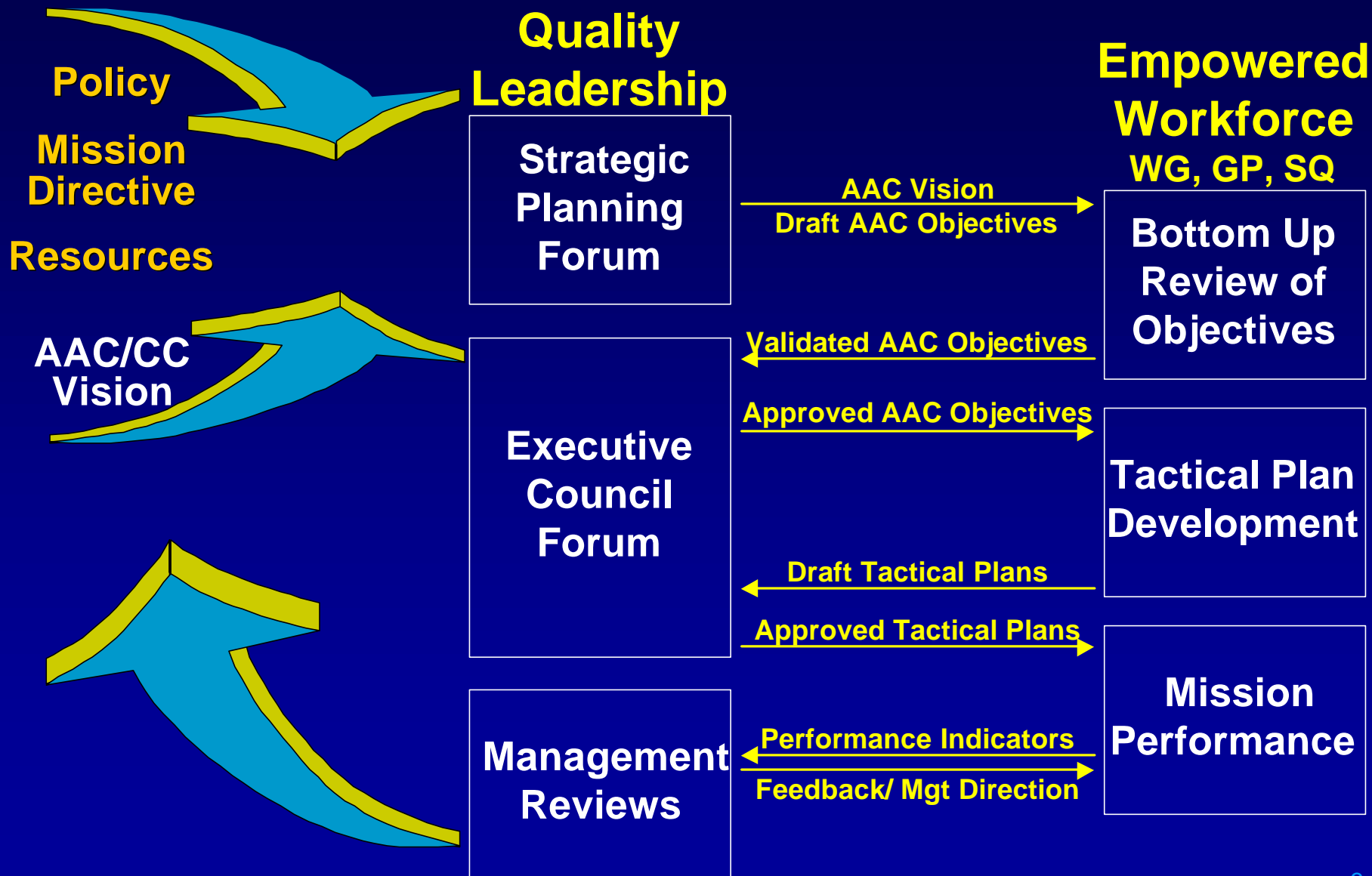
**Present Preliminary Gulf Range Complex Strategic Plan
to the
National Defense Industrial Association**

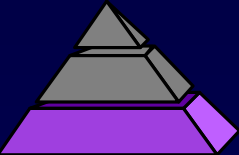


Integrated “Joint” Gulf Test & Training (T²) Range



AAC STRATEGIC PLANNING PROCESS





GRC 2025 VISION

Test and Training (T²), Experiment, and Exercise Range: World Class Test Center with increased emphasis on exercises and experimentation (JWID, EFX, Fleet Exercises, etc.)

Joint/DoD Range: Unique geography (land-sea Interface and vast land, sea, and air space)

Sensor-to-Shooter Range: Integrated Armament, Multi-spectral, and C² Systems T² Environments (ASTE, MSTE and CSTE)



GRC STRATEGIC PLANNING PROCESS

Global
Environments,
Threats, &
Military Strategies
(GETM)

Other Users

Requirements
Identification

Developing
the Plan

1999 Air Armament
Summit

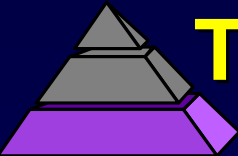
Gulf Range
Strategic Plan
IPT

Feedback to
AAS 2000



GRCSP STAKEHOLDERS



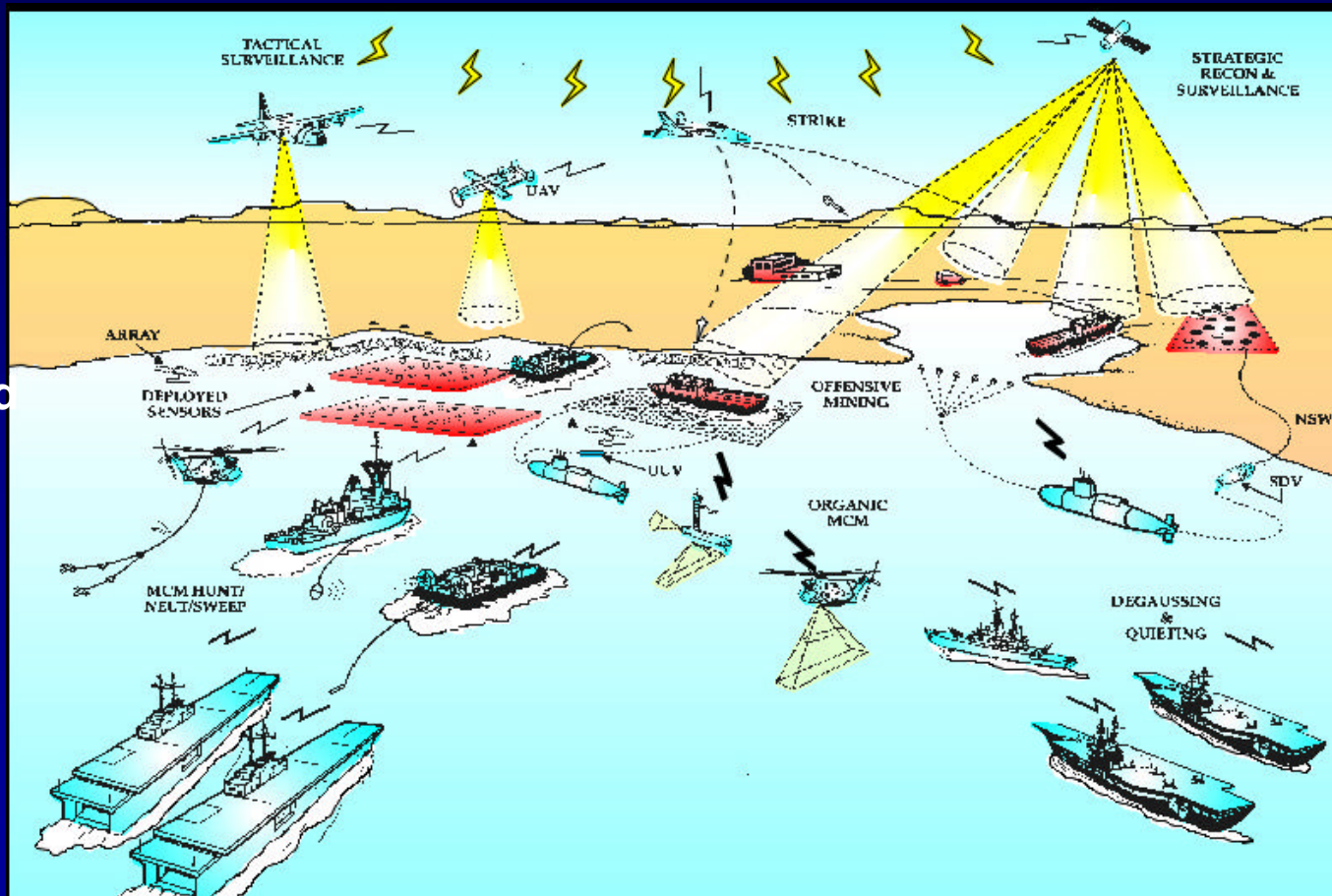


TRAINING, EXERCISES & EXPERIMENTS

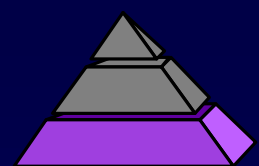
JWID, EFX, Fleet Exercises

GRC Unique Combination of Physical and Geographical Assets:

- 724 Sq Mi Land Range
- 134,000 Sq Mi Water Range
- Overlying Restricted Airspace
- Expansive Littoral Region



Only Major DOD Contiguous Land/Sea T² Range



EGLIN RANGE 2025

1994 Vision of
2010

**Highly Integrated T&E
Complex (HITEC)**
A Robust Capability Supporting All Phases of
the Armament and C4ISR Acquisition Life Cycles

Test Methodologies:

- Modeling and Simulation
- Measurement
- System Integration
- Hardware In-the-Loop
- Installed System
- Open Air Environment

Growth Strategies

1. Optimize Test Process to Customer Requirement
2. Exploit Land, Water, Airspace
3. Automate Test

Customer Requirements:

- Counter Air
- Air-to-Ground
- C4ISR
- EW



GULF RANGE COMPLEX 2025

1999 Vision of
2025

GRC T² Methodologies

- Modeling and Simulation
- Measurement
- System Integration
- System In-the-Loop
- Installed System
- Operational Environment

Growth Strategies

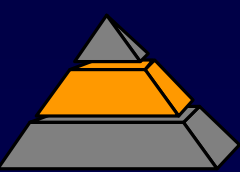
1. Optimize T² Process
2. Grow Hybrid Methodologies
3. Exploit Land, Water, Airspace
4. Integrate Space T²
5. Automate Digital Test

Highly Integrated TT&E Complex (HIT²EC)

A Robust Capability Supporting All Phases of
the Armament and C² Acquisition Life Cycles
And Other DOD/Industry Customers

Customer Requirements:

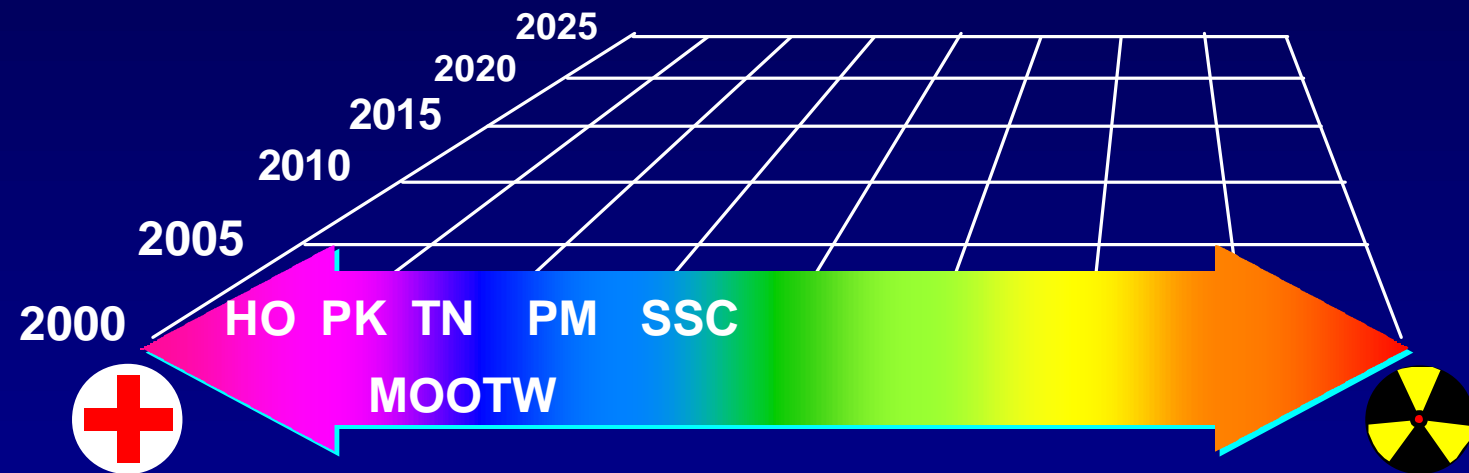
- Counter Air
- Air-to-Ground
- C²
- Multi-Spectral
- Littoral
- Special Operations



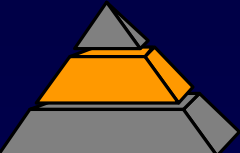
GETM BRIEFING SUMMARY

Most Likely Geo-Political Scenario

Spectrum of War



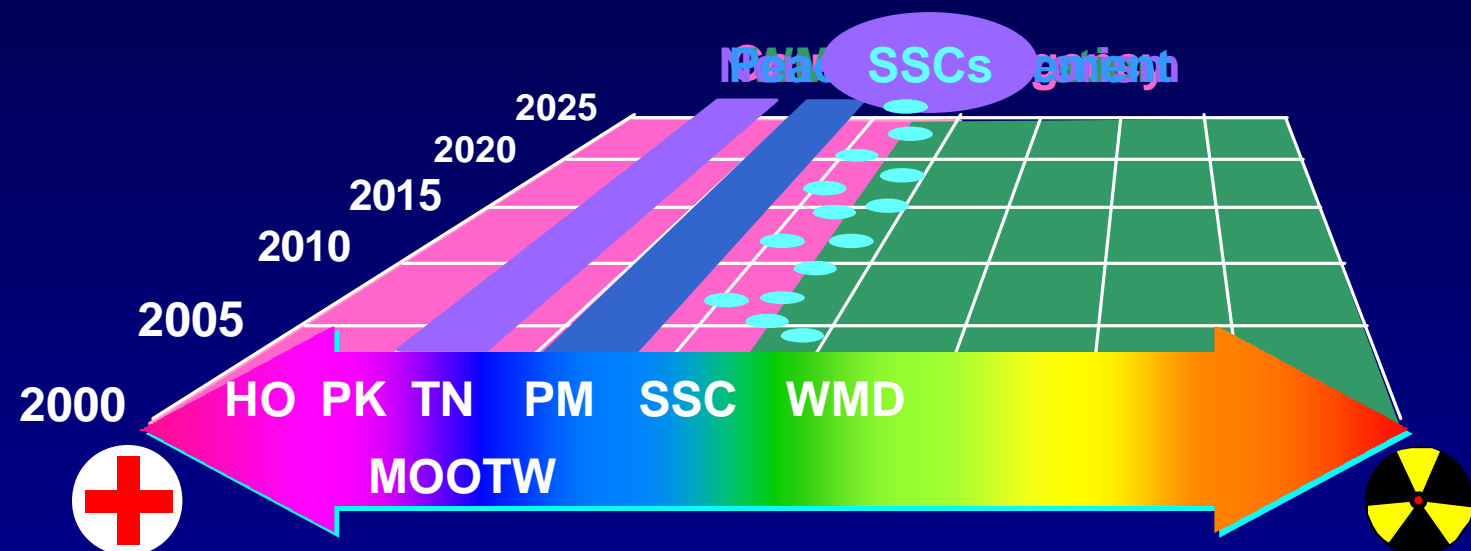
- **Military Operations Other Than War (MOOTW)**
 - Humanitarian Operation (HO): Natural Disaster Assistance, ...
 - Peace Keeping (PK): NATO or UN Presence Mission, Nation Building, ...
 - Trans-National (TN): Anti-Drug Cartel, Anti-Terrorist Activities, Etc.,
 - Peace Making (PM): Military Presence Inserted to Separate Combatants, ...
 - Small Scale Conflicts (SSC): Raids, Strikes, Attacks, Limited eAF Actions ...



GETM BRIEFING SUMMARY

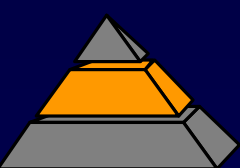
Most Likely Geo-Political Scenario

Spectrum of War



• What Is the Future for MOOTW Actions?

- Ethnic-Based Counterinsurgencies and Cross-Border Aggression Will Be Continuous Across MOOTW
- Non-State Terrorism Will Continue As the Most Likely Asymmetric Threat
- Peace Enforcement Activities Like Bosnia, Etc., Will Also Be Continuous
- Raids, Attacks, Strikes, eAF Class Operations Will Periodically Spot the Future
- Proliferation of WMD Begins in MOOTW Through the Higher Spectrum of War



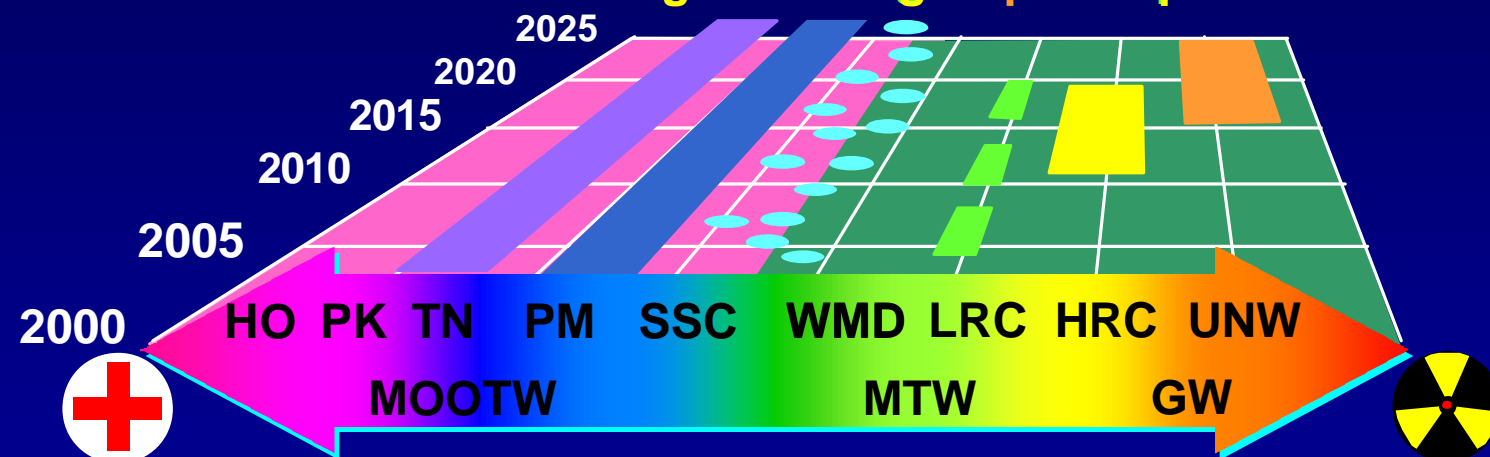
GETM BRIEFING SUMMARY

Most Likely Geo-Political Scenario

Spectrum of War



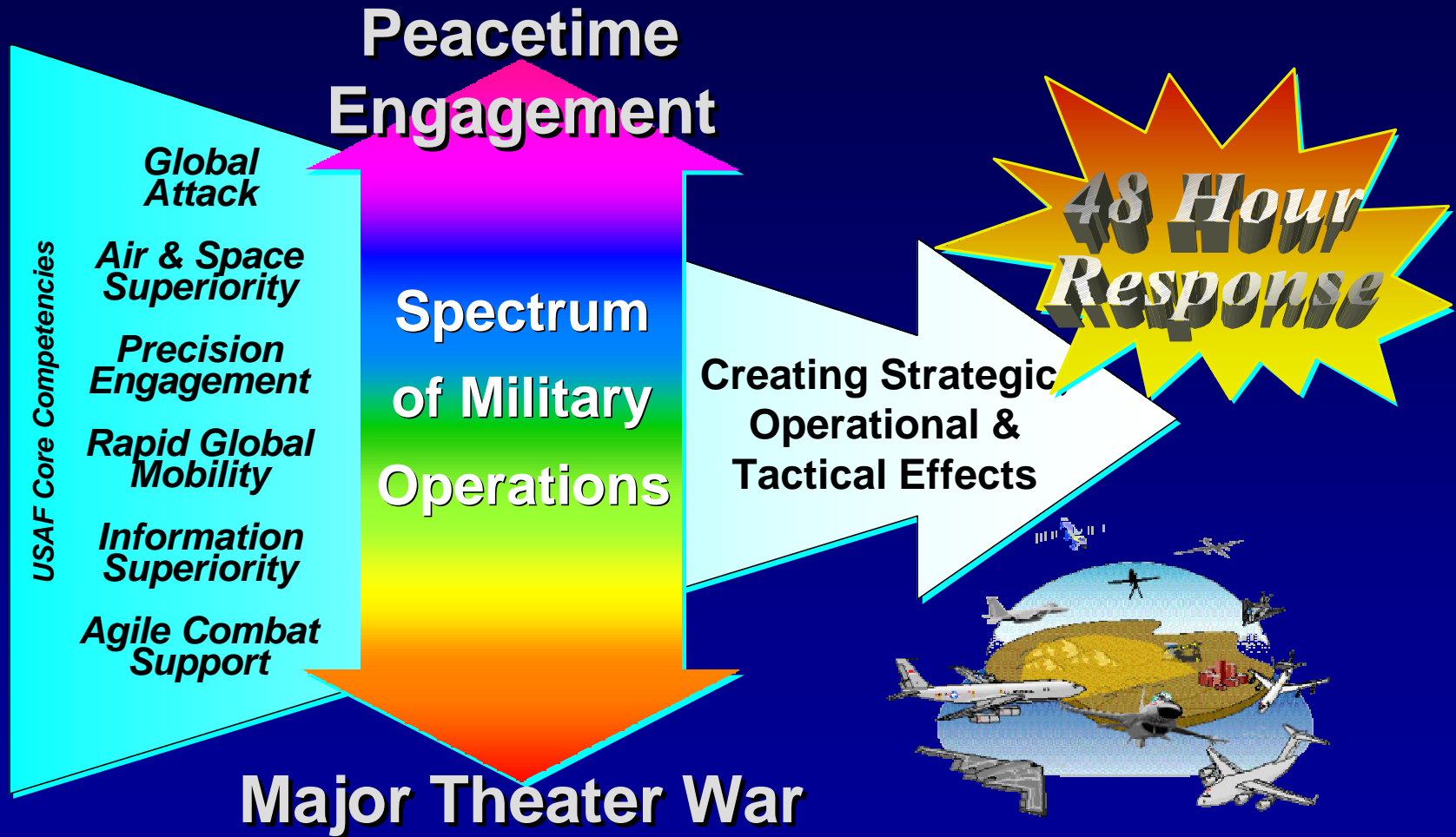
High End Regional Competitor



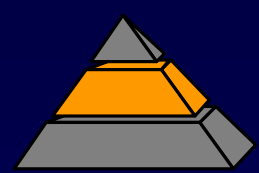
- Major Theater War (MTW): Two MTWs Is the Current Defense Planning Guidance for MPP
 - Low End Regional Competitors Should Arise Periodically Over the Next 25 Yrs
 - After 2010 a High End Regional Competitor Is Expected to Arise
- Global War (GW): Possibility of Catastrophic Unlimited Nuclear Warfare
 - Global Competitor Is Expected to Arise Beyond 2015



OPERATIONAL CONSTRUCTS (eAF)



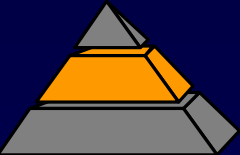
*Rapidly Executable Course of Action for Decision Makers
Tailored to Meet a Joint Force Commander's Needs*



GETM IMPLICATIONS FOR THE GRC T² RANGE

- Dynamic Quick Reaction Acquisition Environment
 - ➔ Responsive and Reconfigurable T² Range
- Military Ops Dominated by MOOTW Through 2010
 - ➔ Robust Targets to Exercise Modern Weapons
- Stealth Not a Silver Bullet Without Suppression
 - ➔ Long Range Weapons Require Greater Range Space
- Identification and Access to Targets More Difficult
 - ➔ Greater Range Preparation
 - ➔ Real World C² Must Be Replicated on Range
- eAF Strategic, Operational and Tactical 48-hour Response
 - ➔ Demonstration of Weapons Systems vs. eAF Operational Objectives
 - ➔ Evaluate C² Full Sensor → Decisions Maker → Shooter → Weapon Capability

Requirement: Provide the Weapons Developer and Operator Robust T² Capabilities to Support Future Requirements

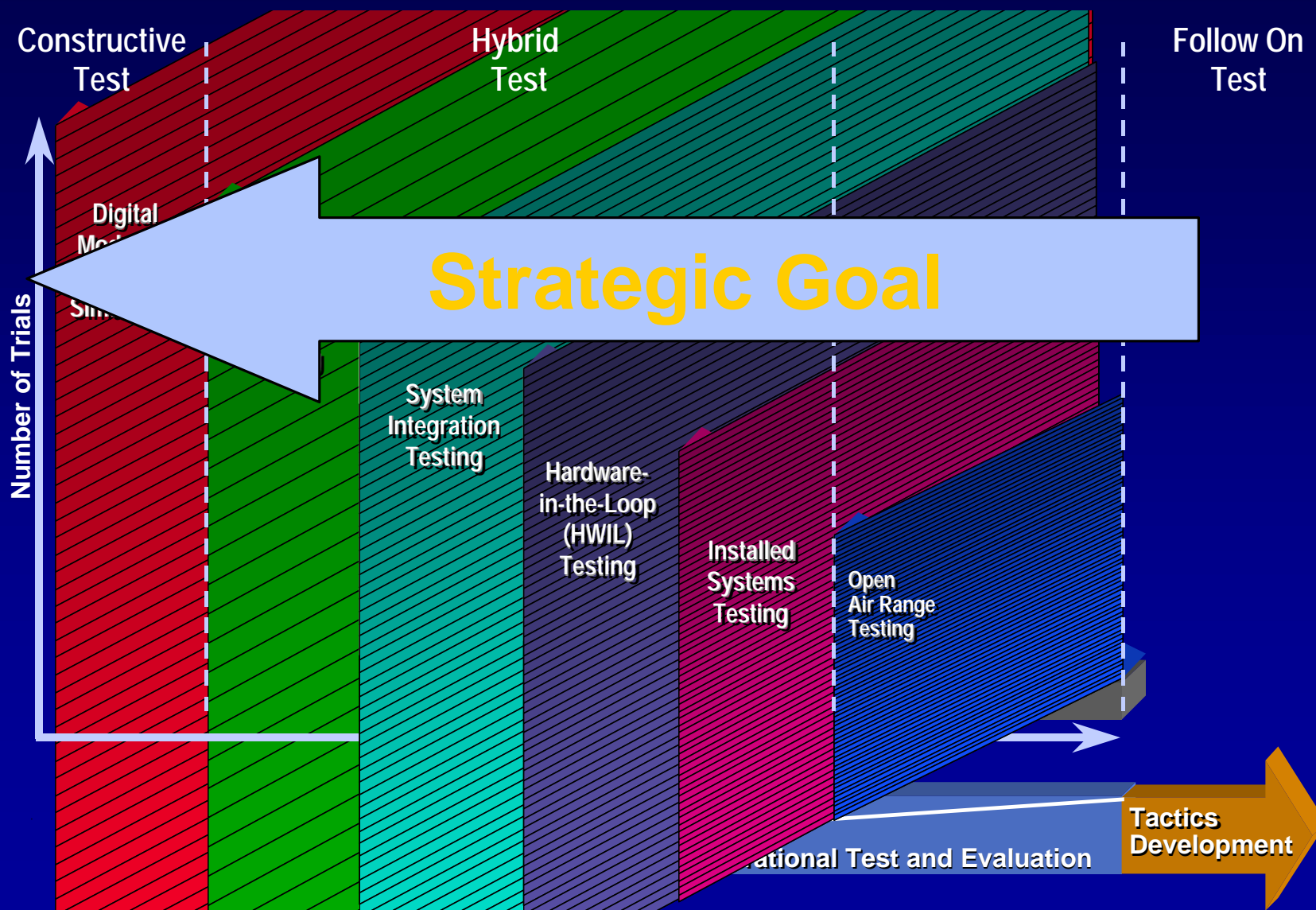


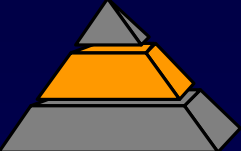
AIR ARMAMENT LONG RANGE PLAN IMPLICATIONS FOR GRC T² RANGE

- **Miniature Munitions From Longer Range Platforms**
 - Extending Range Capabilities Beyond Current Eglin Land Range
 - Need More Representative Targets With Sufficient Analysis for Weapon Effectiveness
- **Next Generation Close Air Support ?**
- **Directed Energy**
 - New Operational Doctrinal Development Drives T² Design
 - Environmental and Safety Issues
- **UCAV**
 - New Operational Doctrinal Development Drives T² Design
 - Positive Control of Airspace Design and Management
- **Integrated Armament Community Challenges**
 - Centralized SIL w/Remote Access for System Developers
 - Comprehensive Systems-of-Systems Test and Training

Future Armament Systems Stressing GRC Boundaries

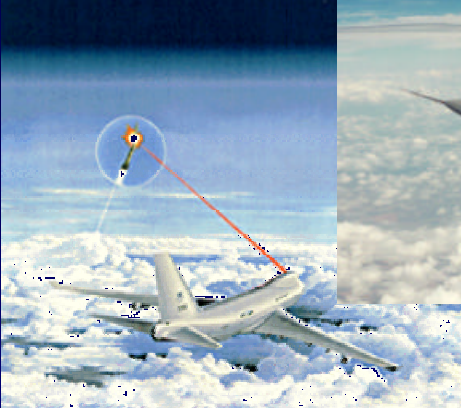
AIR FORCE TEST PROCESS





EVOLVING MISSIONS

Airborne Laser



F-22 Raptor



Hypersonic Weapon

Spaceport Florida



Joint Cruise Missile Defense



Spec Ops

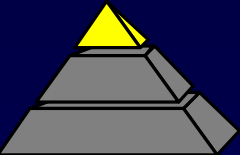


Airspace and Seespace Restructuring

Littoral Warfare

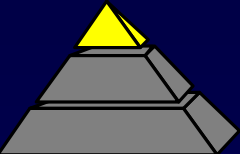


GRC = Dynamic Future!!!



NEAR-TERM ISSUES

- **Littoral/Special Operations**
 - Acquisition of Offshore T² and Instrumentation Platform (LPH Option-USS Tripoli)
 - Land Impact Area
 - Special Operations Maritime Training Complex Study (Live Fire and Riverine T² Range)
- **Air to Surface**
 - Open Air Range: Employment of Greater Than 30NM Standoff Weapons Using an Instrumented EGTR
 - Operational Ground Test: Ground Simulation of Weapon Carriage, Launch and Flight
 - Digital Modeling & Simulation: Increased Investments in the Fundamental Physics Relating to Air Vehicles and Stores



NEAR-TERM ISSUES

- **Counter Air**
 - Optimize T² Airspace
 - Accelerate Transition to GPS-based TSPI/ACTS T²
 - “Joint” Stakeholder GRC Management (Accessible & Affordable for All Users)
- **C2ISR**
 - Systems-of-Systems
 - Sensor → Decision Maker → Shooter
 - Establish “Joint” C² GRC T² Center
 - Acquiring and Sustaining the Facilities and Expertise
- **Multi-spectral**
 - Sustaining a Realistic, Affordable Multi-Spectral Threat Environment for: Trainer/Operator, Munitions Developer, Tester
 - Expanded Signature Capability
 - Multi-Spectral/Multi-Mode
 - Signature Transportation